

Today I hope to find out more about how you use machine learning interpretability tools, both on your own and with teams or groups that include people with diverse expertise's. We hope to use this and other interviews to improve machine learning interpretability tools so that they are more widely and easily usable. I expect this interview to last around 1 hour. You may stop the interview at any time for any reason. With your permission, I will record the audio of this interview so that it can be transcribed and reviewed by the research team. Is this ok? Do you have any questions before we begin?

1. What is your role? For example: machine learning practitioner, data scientist, doctor, statistician, or others.
 - a. How long have you been in this role?
 - b. What types of data do you normally work with? For example: financial, medical, criminal justice, or others.
 - c. What is your background in machine learning and data science?
 - d. Have you used interpretability tools such as InterpretML, SHAP, LIME, visualizations of linear models, or others? Which ones?
 - e. [For each interpretability tool mentioned in 1d] What is your experience with this tool?
 - f. [For each interpretability tool mentioned in 1d] How frequently do you use this tool?
 - g. Why do you choose to use interpretability tools?
2. What objectives do you use these tools to achieve and for each do you do this alone, with a group of people with diverse sets of expertise's, or both? [prompt with each of the sub-points below if participant runs out of objectives]
 - a. Debug data and model issues
 - b. Decide whether or not to deploy a model
 - c. Decide whether or not to trust a model
 - d. Understand what the model is learning
 - e. Show user facing explanations
 - f. Check compliance with regulations (such as GDPR)
 - g. Communicate your own findings to others
 - h. Communicate with a team in order to collaborate
3. Thinking about [choose objective(s) from question 2], can you tell me about a time when you used an interpretability tool to accomplish this alone? Perhaps a time when you discovered something using the tool.
 - a. Tell me about a time when you discovered something using the tool.
 - b. What was the most difficult thing about using the tool?
 - c. What was something about the tool that was very useful?
 - d. Tell me about a time when something went wrong.
 - e. Tell me about a time when something went right.
4. Thinking about [choose objective(s) from question 2], can you tell me about a time when you used an interpretability tool to accomplish this with a group or team of people with a diverse set of expertise's? Perhaps a time when the group discovered something using the tool.
 - a. Tell me about a time when you discovered something using the tool.
 - b. What were the roles of the team members present?
 - c. Tell me about a time when you had to explain something in the tool, visualization, or model to someone else in the meeting.
 - d. What was the most difficult thing about using the tool?

- e. What was something about the tool that was very useful?
 - f. Tell me about a time when something went wrong.
 - g. Tell me about a time when something went right.
5. [For scenario(s) mentioned in 3 and 4 as applicable]
- a. What part of [the scenario] was particularly hard to understand?
 - i. What was confusing?
 - ii. What questions were asked?
 - iii. How were the questions answered?
 - iv. How did you go about finding potential answers?
 - v. How did you go about checking whether or not potential answers were correct?
 - vi. Did you use visualizations or tools to resolve the scenario?
 - vii. How were you able to come to an understanding?
 - viii. Did you have to use multiple tools or resources to resolve the scenario?
 - b. Were there any aspects that were particularly easy to understand?
 - c. Did you use any part of the tool to help facilitate communication or collaboration within the team?
 - d. Did the team use something that was not a part of the tool to help facilitate communication or collaboration within the team?
6. If you had a genie that could grant interpretability tool wishes, what new tool, functionality, or addition would you ask for? Is there a workaround you are currently using to achieve this functionality?
- a. What types of models would you like?
 - b. What types of plots would you like?
 - c. What types of explanations would you like?
 - d. What types of data would you like to be supported?
7. That is all the questions I have. Do you have any additional questions for me before we conclude? Thank you very much for your time.